

**"APPROVED FOR RELEASE: 03/13/2001**

**CIA-RDP86-00513R000827020006-6**

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KUBIKOWSKI, Piotr

Application of antimetabolites in pharmacology. Acta physiol. polon.  
9 no.1:99-114 1958

1. Z Zakładu Farmakologii A.M. w Warszawie. Kier.; prof. dr P. Kubikowski  
(METABOLISM,  
antimetabolites, pharmacol. use review (Pol))

KUBIKOWSKI, P.

Neurohormones and their significance in pharmacological research.  
Acta physiol. polon. 10 no.2:235-251 Mar-Apr 59.

1. Z Zakladu Farmakologii A. M. w Warszawie Kierownik: prof. dr  
P. Kubikowski.

(HORMONES,

neural hormones, review (Pol))

(NERVOUS SYSTEM,

neural mediators & hormones, review (Pol))

KUBIKOWSKI, Piotr

Janusz Supniewski. Nauka polska 8 no.3:122-126 J1-S '60.

1. Akademia Medyczna, Warszawa.

KUBIKOWSKI, Piotr, prof. dr; CZLONKOWSKI, Franciszek, mgr.

Activities of the Drug Institute. Farmacja Pol 18  
no.17/18:406-410 S '62.

\*

KUBIKOWSKI, Piotr, prof.

Institute of Drugs; its history, development, works.  
Nauka polska 11 no.5:87-94 '63.

1. Dyrektor Instytutu Lekow, Warszawa.

\*

KUBIKOWSKI, Piotr, prof.

The history, development, and activities of the Institute of  
Drugs. Review Pol Academy 9 no.1:47-51 Ja-Mr '64

1. Director, Institute of Drugs, Warsaw, Długa 16.



KUBIKOWSKI, Piotr, prof. dr.; MAJCHERCZYK, Janina; SZYMANSKA, Janina

New derivatives of hydrazinophthalazine with hypotensive activity. Acta physiol. Pol. 16 no.2:289-296 Mr-Ap'65.

1. Zaklad Farmakologii Eksperymentalnej Akademii Medycznej w Warszawie (Kierownik: prof. dr. P. Kubikowski).

KUBILSKAYA, N. V.

Radiation - Physiological Effect

Etiology, prevention and treatment of skin injuries caused by radiation therapy of patients with malignant and benign neoplasms. Vest. rent. i rad. No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

BARSHAUSKAS, K. [Barsauskas, K.]; ILGUNAS, V.; KUBILYUNENE, O.  
[Kubliiuniene, O.]

Measurement of ultrasonic dispersion in liquids using the  
interferometric method. Akust. zhur. 10 no.1:25-29 '64.

(MIRA 17:5)

1. Kaunasskiy politekhnicheskii institut.

ACCESSION NR: AP4025730

S/0046/64/010/001/0054/0059

AUTHORS: Ilgunas, V.; Kubilyunene, O.; Yaptas, A.

TITLE: Precision interferometer for measuring ultrasound velocities in fluids in the frequency range 1 - 12 megacycles.

SOURCE: Akusticheskiy zhurnal, v. 10, no. 1, 1964, 54-59

TOPIC TAGS: interferometer, ultrasound velocity, crystal diameter, quartz crystal, reflector diameter, Pirs interferometer, impulse method, standing plane wave

ABSTRACT: The accuracy of velocity measurement by the described interferometer is  $\pm 10^{-2}$  percent. The authors give the dependence of the measured ultrasound velocity in water on the ratio of the diameter of the crystal to the length of a sound wave in water, and also on the ratio of the reflector diameter to the wave length. They describe an interferometer of variable length, of Pirs type, with the ordinary indication (with the help of a pointer or a recording measuring device), which in accuracy not only exceeds that of an interferometer with the noted complicated means of indication but gives results close to the most perfect impulse method. Generally an interferometer is used in the presence of rather strict standing plane

Card 1/2

ACCESSION NR: AP4025730

waves with front parallel to the surfaces of the radiation crystal and the reflector. The authors touch upon the problem of using an interferometer for measuring ultrasound velocity also for lower frequencies, when there is a diffractive pattern for the sound field. The construction of this interferometer was done after thorough theoretical and experimental investigation of the oscillating properties of a crystal working in the complicated acoustical system of the interferometer. With precision interferometric measurements (with accuracy of about 0.01 percent) the true velocity of propagated plane waves is determined only when  $d/\lambda \geq 50$ . When  $d/\lambda < 50$  it is necessary to consider the effect of diffraction on the measured value of the ultrasound velocity, and the diameter of the reflector must be of rather large dimensions in order not to multiply the diffractive effects. Verification for measured velocity values for  $d/\lambda < 50$  may be determined by making measurements in undispersed fluids. When  $d/\lambda < 13$  the velocity measurements cannot be made with this interferometer because of the large diffractive field distortion.

Orig. art. has: 7 figures, 2 tables, and 2 formulas.

ASSOCIATION: Kaunasaskiy politekhnicheskii institut (Kaunas Polytechnical Institute)

SUBMITTED: 04Jul63

DATE ACQ: 10Apr64

ENCL: 00

SUB CODE: PH

NO REF SOV: 005

- OTHER: 009

Card 2/2

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KUBILYUS I. P., LINNIK, Yu. V.

**Equations, Quadratic**

Resolving the product of three numbers into the sum of two squares. I. P. Kubilyus, Yu. V. Linnik., Trudy Mat. inst., no. 38, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1957, Uncl.

2



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KUBILYUS, I. P.

Mathematical Reviews  
Vol. 14 No. 9  
October 1953  
Number Theory

8-10-54

LL

@ Vilnius

Kubilyus, I. P. On some problems of the geometry of prime numbers. Mat. Sbornik N.S. 31(73):307-342 (1952). (Russian)

This is a development of the "analytical number-theory in  $n$  dimensions" introduced by Hecke on the basis of his zeta-functions associated with an algebraic number-field  $K$  of degree  $n$ . The existing theory is extended and strengthened by the use of the more powerful methods now available for estimating trigonometrical sums and the density of zeros of zeta-functions. The results are too elaborate to summarise in detail, but they take the general form of asymptotic approximations to the number of prime ideal numbers  $p$  for which  $p \equiv \nu \pmod{m}$  (in a given ideal of  $K$ , and  $\nu$  a given ideal number prime to  $m$ ) and  $p$  (suitably interpreted as a point in  $n$ -dimensional Euclidean space) lies in a given region. Specialised forms of the theorems have implications about the distribution of rational primes. Thus the formula for the asymptotic distribution of Gaussian primes  $p = k + il$  in sectors is obtained in a version that implies the existence of an infinity of rational primes  $p$  expressible in the form  $p = k^2 + l^2$  with rational integers  $k, l$  such that  $p = O(p^\theta)$ , where  $\theta < 1$  is a certain absolute constant. The numerical value found for  $\theta$  depends on an estimate of the density of zeros of the relevant zeta-functions to the right of the critical line, and the method used here gives  $\theta = 25/32$ . The paper has points of contact with results recently announced by Haselgrove [J. London Math. Soc. 26, 273-277 (1951); these Rev. 13, 438].

A. E. Ingham.

KUBILIUS, I.

First national mathematical olympiad for students of the Lithuanian S.S.R.  
Usp.mat.nauk 8 no.3:203-205 sv-jv 53. (MLBA 6:7)

(Lithuania--Mathematics--Competitions)

(Competitions--Mathematics--Lithuania)

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I spanning distribution is therefore not a

AN

USSR/ Mathematics - Additive functions

Card 1/1      Pub. 22 - 4/60

Authors :      Kubilyus, I. P.

Title :      On distributing the values of additive arithmetic functions

Periodical :      Dok. AN SSSR 100/4, 623-626, Feb 1, 1955

Abstract :      Definitions of an additive and of a strongly additive arithmetic function are given and a theorem dealing with such functions is proved. It shows that very strongly additive functions, with broad assumption concerning the limits for their characteristics, can be distributed according to the normal law of distributions. Erdős's and Katz's theorems can be considered as particular cases of the proved theorem. Two references: 1 USA and 1 USSR (1940-1947).

Institution :      Acad. of Scs., <sup>LITH. SSR</sup> ~~USSR~~ Physico-Technical Institute

Presented by:      Academician A. N. Kolmogorov, December 14, 1954

1. 1961 230-742, DIS 4, III (1965), 43-51, 1

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Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.)<sup>Moscow</sup>  
 Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.  
 Vinogradov, A. I. (Leningrad). New Additive Problems  
 with primes. 4

Dem'yanov, B. V. (Moscow). On Hypothesis Concerning the  
 Expression of Zero by Forms With  $p$ -adic coefficients. 4-5

There are 2 references, both USSR.

Kogoniya, P. G. (Tbilisi). On the Set of Condensation Points  
 of Markov's Number Set. 5

There are 2 references, 1 USSR and 1 German.

Kubilyus, I. P. (Vil'nyus). On Distribution Values of  
Theoretical Number Functions. 5-6

Mention is made of Kolmogorov, A. N.

Levin, B. V. (Tashkent). On a Special Class of Differential  
 Operators Which is Connected With the Theory of Modular Functions  
 and the Theory of Numbers. 6  
 Card 3/80

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KUBILJUS, I.P.

SUBJECT	USSR/MATHEMATICS/Number theory	CARD 1/1	PG - 388
AUTHOR	KUBILJUS I.P., LINNIK Ju.V.		
TITLE	An elementary theorem of the prime number theory.		
PERIODICAL	Uspechi mat. Nauk <u>11</u> , 2, 191-192 (1956) reviewed 11/1956		

By a very simple argument the authors show that there are infinitely many pairs of prime numbers  $p_1, p_2$  such that  $p_1 p_2 = a^2 + b^2$  and  $0 < b < \log p_1 p_2$ , where  $a$  and  $b$  are integers.

KUBILYUS, Jonas Petrovich (Inst of Physics and Math, AS, L1SSR) awarded  
sci degree of Doc Physico-Math Sci for the 21 Nov 57 defense of disser-  
tation: "Certain investigations in the theory of numerical probabilities"  
at the Council, Math Inst imeni Steklov, AS, USSR; Prot No 14, 31 May 58.  
(BMVO, 11-58,19)

SOV/43-59-1-4/17

16(1)

AUTHOR:

Kubilyus, I.P.

TITLE:

Convolutions of Arithmetic Functions and Boundary Value Theorems for Sums of Independent Random Magnitudes (Svertki arifmeticheskikh funktsiy i predel'nyye teoremy dlya summ nezavisimyykh sluchaynykh velichin)

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1959, Nr 1(1), pp 30-33 (USSR)

ABSTRACT: Let the number  $m$  take integer values.  $c(m) = a(m) * b(m) = \sum_{d|m} a(d)b(\frac{m}{d})$  is denoted as convolution of the arithmetic functions  $a(m)$  and  $b(m)$ . Let  $\{a_k(m)\}$  be a sequence with the properties: 1.  $a_k(m) \gg 0$  2.  $\sum_{m=2}^{\infty} a_k(m) \ln^2 m$  converge. Let

$$A_n(m) = a_1(m) * a_2(m) * \dots * a_n(m), s_k = \sum_{m=1}^{\infty} a_k(m), c_n = \sum_{k=1}^n c_k,$$

$$c_k = \frac{1}{s_k} \sum_{m=2}^{\infty} a_k(m) \ln m, \sigma_k = \left\{ \frac{1}{s_k} \sum_{m=2}^{\infty} a_k(m) \ln^2 m - c_k^2 \right\}^{1/2}.$$

Card 1/3

Convolutions of Arithmetic Functions and Boundary Value Theorems for Sums of Independent Random Magnitudes SOV/43-59-1-4/17

$$B_n = \left\{ \sum_{k=1}^n \sigma_k^2 \right\}^{1/2}.$$

Theorem: In order that  $\frac{1}{s_1 s_2 \dots s_n} \sum_{\ln m < B_n x + C_n} A_n(m)$  for  $n \rightarrow \infty$

converges to a limit distribution function with dispersion 1 in all points of continuity and  $\sup_{1 \leq k \leq n} \frac{1}{s_k} \sum_{|\ln m - c_k| > s B_n} a_k(m) \rightarrow 0$ , it

is necessary and sufficient that there exists a nondecreasing function  $K(u)$  which is defined for all real  $u$ , possesses the variation 1, satisfies the condition

$$\frac{1}{B_n^2} \sum_{k=1}^n \frac{1}{s_k} \sum_{\ln m < B_n u + c_k} a_k(m) (\ln m - c_k)^2 \rightarrow K(u)$$

for  $u \neq 0$  and  $n \rightarrow \infty$ , and thereby it is

Card 2/3

Convolutions of Arithmetic Functions and Boundary Value Theorems for Sums of Independent Random Magnitudes SOV/43-59-1-4/17

$$\sup_{1 \leq k \leq n} \frac{1}{a_k} \sum_{m=1}^{\infty} \frac{a_k(m)(\ln m - o_k)^2}{B_n^2 + (\ln m - o_k)^2} \rightarrow 0.$$

The logarithm of the characteristic function  $\varphi(t)$  is given by

$$\ln \varphi(t) = \int_{-\infty}^{\infty} (e^{itu} - 1 - itu) \frac{1}{u^2} dK(u)$$

Two further theorems present special cases. The author mentions B.V.Gnedenko and A.V.Groshev. He thanks Yu.V.Linnik for posing the problem. There are 5 references, 1 of which is Soviet, 1 Italian, 1 Dutch, and 2 American.

SUBMITTED: June 22, 1957

Card 3/3

16(1)

AUTHORS: Kubilyus, I. P., and Linnik, Yu. V.

06311

SOV/140-59-6-12/29

TITLE: Arithmetic Modelling of the Motion of Brown

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 6, pp 88-95 (USSR)

ABSTRACT: Let  $N_u\{\dots\}$  be the number of natural numbers  $m \leq u$  satisfying the conditions given in the braces  $\{\dots\}$ . Let  $P > 1$  be an odd number free of squares and  $\left(\frac{m}{P}\right) = \prod_{p|P} \left(\frac{m}{p}\right)$ , where  $p$  runs through all prime divisors of  $P$  and  $\left(\frac{m}{p}\right)$  is the Legendre's symbol. Let

$$S_P(m, s, t; h) = \frac{1}{\sqrt{h}} \sum_{hs \leq n \leq ht} \left(\frac{m+n}{P}\right), \quad 0 \leq s \leq t.$$

Theorem 1: If  $P$  runs through an increasing infinite sequence of odd numbers free of squares, where for every  $c \geq 0$  it holds

(1)  $\prod_{p|P} \left(1 - \frac{c}{p}\right) \rightarrow 1$  for  $P \rightarrow \infty$ ,  $h = h(P) \rightarrow \infty$ ,  $\log h / \log P \rightarrow 0$ , then

$$(2) \quad \frac{1}{P} N_P\{S_P(m, s, t, h) < x\} \rightarrow \frac{1}{\sqrt{2\pi(t-s)}} \int_{-\infty}^x e^{-\frac{u^2}{2(t-s)}} du$$

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13

Arithmetic Modelling of the Motion of Brown

06311

SOV/140-59-6-12/29

and for an arbitrary choice of disjoint intervals  $(s_1, t_1), \dots, (s_k, t_k)$ ,  $0 \leq s_j \leq t_j$  ( $j=1, \dots, k$ ) it holds

$$(3) \quad \frac{1}{P} N_P \{ S_P(m, s_1, t_1, h) < x_1, \dots, S_P(m, s_k, t_k, h) < x_k \} \rightarrow \\ \rightarrow \prod_{j=1}^k \lim_{P \rightarrow \infty} \frac{1}{P} N_P \{ S_P(m, s_j, t_j, h) < x_j \} .$$

An analogous result (theorem 2) holds for characters of higher order. A series of proposals of programming for the calculation of the symbols of Legendre and Jacobi is given. There are 6 references, 1 of which is Soviet, 1 Swedish, 1 American, 1 French, and 2 Italian.

ASSOCIATION: Vil'nyusskiy gosudarstvennyy universitet imeni V.Kapsukasa  
(Vil'nyus State University imeni V.Kapsukas)  
Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova  
(Leningrad State University imeni A.A.Zhdanov)

Card 2/2

PLUSE I BOX RELEVANT 807/981

Sovetskoye po teorii veroyatnostey i matematicheskoy statistike, Ierusalem, 1953  
Izvestiya Vsesoyuznogo nauchnogo tsentra po teorii veroyatnostey i matematicheskoy  
statistike, Ierusalem, 1953-54. (All-Union Conference on the  
Theory of Probability and Mathematical Statistics. Held in Ierusalem 19-25  
September, 1953. Transactions) Ierusalem, Izdatstvo AN SSSR, 1960. 291 p.  
Errata ally inserted. 2,500 copies printed.

Sponsoring Agency: Akademiya nauk Armyskiy SSR.

Editorial Staff: G.A. Akhmetov, S.V. Gendelman, Yu.V. Dymov, Yu.V. Klimik and  
S. Sh. Tsyplov; Ed. of Publishing House: A.G. Akhmetov, Ed.: M.A. Kopylov.

REMARKS: The book is intended for mathematicians.

CONTENTS: The book contains 11 articles submitted to the Conference and dealing with  
the theory of probability and mathematical statistics. Some of the articles are  
the papers read at the Conference and edited for publication, while others outline  
the theory of papers which appeared or are scheduled to appear, mainly as a  
part, in other publications; in some cases, such publications are listed.  
List of the papers whose contents were published elsewhere is included and the  
names of publication are indicated. Individual articles contain theories of  
mass service, spectral instruments, numbers, games, and certain functions, and  
theorems of the theory of numbers, Markov's chains, and certain processes, quan-  
tities, and functions. Some items as the method of least squares, the stochastic,  
Markov, and diffusion processes, measures and their applications, a scheme of  
Bernoulli experiments, type fields, visible distribution of errors, a scheme of  
Bernoulli experiments, capacity of channels, and defective products are con-  
sidered. In parentheses are mentioned. References accompany some of the  
articles.

Belikov, A.Y. Asymptotic Validity of Some Parametric Criteria Concerning Hypothesis. (Theses)	98
Brenner, A.Y. On Maximum Coefficient of Correlation. (Theses)	101
Klinger, A.A. New Results Concerning Independent Statistics. (Theses)	103
Malayevskiy, G.Y. On the Theory of the Method of Least Squares When Weights are Unknown	106
Adarkovskiy, G.A. On Quantity of Information About an Unknown Probability In the Scheme of Bernoulli's Experiments	112
Smirnov, A.D. On the Statistical Criterion, $\chi^2$ , as Applied to the Problem of Two Samples	121
X Adarkovskiy, V.A. On Fluctuations in the Visible Distribution of Stars	129
Jepet, S.H. On One Problem in the Theory of Mass Service	143
Konstantin, I.I. On the Estimation of Additive Type of Distribution by the Sequence of Series of Independent Observations	145
Klona, B.L. Random Quantities of Nonpart Semigroups. (Theses)	146
Belikov, A.Y. Yu.V. Dymov, and A.Y. Dymovskiy. Some New Results in the Probabilistic Theory of Numbers, and Simulation of Bernoulli Motion. (Theses)	148
Belikov, A.Y. Yu.V. Dymov, and A.Y. Dymovskiy. Approximate Compu- tation of the Carrying Capacity of Radio Channels with Random Parameters (Theses)	149
Konstantin, D.B. Distribution of the Number, $X$ , of Defective Products in 1960	178
Khafiz, L.A. On Theoretical Informational Approach to the Theory of Spectral Diffusions	187
Smirnov, I.B. On Probability Problem Leading to Dynamic Programming	206

Card 2/3

KUBILIUS, Yonas Pyatro[Kubilius, Jonas]; PETRAYTIS, A.[Petraitis, A.],  
red.; KARVYALIS, V.[Karvelis, V.], tekhn. red.

[Probability methods in the theory of numbers] Veroliatnostnye  
metody v teorii chisel, 2., dop. izd. Vil'nius, Gos.izd-vo  
polit. i nauchn. lit., Litovskoi SSR, 1962. 220 p.

(MIRA 16:3)

(Numbers, Theory of) (Probabilities)

Transactions of the Sixth Conference (Cont.)

SOV/6371

7. Zolotarev, V. M. On a New Viewpoint Regarding Limit Theorems Which Take Large Deviations Into Account 43
8. Analog of an Asymptotic Edgeworth-Kramer Expansion for Approximating by Stable Laws of Distribution 49
9. Korolyuk, V. S. On a Method for Constructing Asymptotic Expansions 51
10. Kubilyus, I. P. On Some Problems of the Probabilistic Number Theory 57
11. Mitalauskas, A. A. Local Limit Theorems for the Convergence of Sums of Independent Random Variables Toward a Stable Law 69
12. Petrov, V. V. Asymptotic Expansions for Derived Functions of the Distribution of a Sum of Independent Random Quantities 71

Transactions of the 6th Conf. on Probability Theory and Mathematical Statistics and of the Symposium on Distributions in Infinite-Dimensional Spaces held in Vil'nyus, 5-10 Sep '60. Vil'nyus Gospolitizdat Lit SSR, 1962. 493 p. 2500 copies printed

KUBILYUS, Yu.Yu., [Kubilius, J.] starshiy nauchnyy sotrudnik; SIMANOVICH, G.S.

Discussing the problems of the application of ultrasonic waves.  
Tekst.prom. 22 no.6:69-74 Je '62. (MIRA 16:5)

1. Litovskiy nauchno-issledovatel'skiy institut tekstil'noy  
promyshlennosti (LitNIITP) (for Kubilyus). 2. Starshiy inzh.  
tekhnologicheskogo otdela Grodnenskogo tonkosukonnogo kombinata  
(for Simanovich).

(Dyes and dyeing)

(Ultrasonic waves--Industrial applications)

KUBIN, A.

Engineering Research

Stop underestimating advanced engineering techniques. Vest.inzh.i tekhn. no. 3, 1948.

9. Monthly List of Russian Accessions, Library of Congress, April 1952 ~~1953~~, Uncl.

KUBIN, BORIS

Category : CZECHOSLOVAKIA/Radiophysics - Statistical Phenomena in Radiophysics I-3

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4436

Author : Kubin, Boris

Title : Methods of Separating Very Weak Periodic Signals from Noise

Orig Pub : Slaboproudy obzor, 1956, 17, No 5, 248-250

Abstract : Brief survey of a method of separating periodic signals from noise.

Card : 1/1

KUBIN, B. HRDICKA, J.

Electronic stop watches in photographic technique. p. 50.

(Jemna Mechanika A Optika. Vol. 2, no. 2, Apr. 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.



S/194/62/000/004/105/105  
D271/D308

AUTHOR: Kubin, Boris

TITLE: A statistical method for measuring telegraphic distortion

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 4, 1962, abstract 4-8-47y (Sb. prací Výzkumn. ústavu spojů, 1959, Praha, 1960, 71-106)

TEXT: A new method for measuring telegraph signal distortions is considered. A graph of statistical distribution of arrhythmical distortion or of the dependence of incorrect reception of signals on this distribution is obtained by measurements. A method is put forward for plotting summation curve for several series connected telegraph circuits and an expression is derived for calculating the error ratio from statistical measurements. Results of distortion measurements in Czechoslovakian telegraphic network are described. [Abstracter's note: Complete translation.]

Card 1/1

82423

Z/039/60/021/04/009/026  
E140/E235

6.7200  
AUTHOR: Kubín, B., Engineer  
TITLE: Analysis of Teletype Transmission of Czech Text  
PERIODICAL: Slaboproudý obzor, 1960, Vol 21, Nr 4, pp 228-236  
ABSTRACT: A standard of one error in 105 symbols is imposed (Refs 1 and 2). A statistical analysis is given to determine teletype parameters for this quality. The following assumptions are made: a) Gaussian distribution of time-distortion of teletype signals; b) limiting distortion is the boundary between correct and incorrect restoration of transmitted symbols; c) in incorrect a single characteristic time of the symbol; d) inter-correlation of the text is neglected; this is equivalent to the assumption that the transmission is an ergodic statistical process. The work is based mainly on reference 1. The statistical analysis of Czech text given in Tables II and III is based on the entire second page of the newspaper Rudé pravo of 26 March 1959.  
Abstractors Note: This may be representative of Czechoslovak teletype traffic, but not of Czech commercial

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Z/039/60/021/04/009/026  
E140/E235

Analysis of Teletype Transmission of Czech Text

correspondence, etc). The analysis is further carried out for page printers and tape printers. In the analysis second order probabilities were neglected. This leads to: a) a pessimistic result which does not matter because actual transmission will therefore be better than calculated; b) the partial probabilities must be  $< 10^{-2}$ , which, however, is far below the limit of quality under consideration. The author concludes: a) transmission for page printer requires higher quality of transmission than for tape printer; b) the most important sources of error in decreasing order are: 1) asynchronism, 2) random distortion, 3) limiting distortion of the receiver and unsymmetrical distortion. There are 14 figures, 4 tables, and 11 references, 1 of which is Soviet, 4 English and 6 Czech.

ASSOCIATION: Výzkumný ústav spojů (Communications Research Institute)

SUBMITTED: July 24, 1959

KUBIN, Boris, inz.

Elements effecting the quality of teletype transmission. Cz spoje 6  
no.12:10-15 D '61.

KUEIN, Boris, inż., JERAEEK, Jiri

The character of our telegraphic operations.  
Czspoje 7 no.2:4-8. F '62.

1. Pracovník Vyzkumného ústavu spoju.

35274

Z/039/62/023/004/003/010  
D291/p303

6.7200 (1524)

AUTHOR: Kubin, Boris, Engineer

TITLE: Transistorized analyzer of teletype-signal distortion

PERIODICAL: Slaboproudý obzor, v. 23, no. 4, 1962, 207-212

TEXT: The article describes a transistorized analyzer for teletype-signal distortion, developed by the Výzkumný ústav spojů (Communications Research Institute) in Prague. The analyzer measures and statistically evaluates the relative distortion of teletype-modulation characteristics (which are essential for the transmission quality), using the method of multi-channel measuring of short time intervals. The analyzer has 50 statistical intervals (channels) with a width of 2% (distortion) and has then a measuring range of -50 to +50%. The discrimination power can be improved by narrowing the statistical intervals to 1%, i.e. reducing the measuring range to -25% to +25%. The instrument is destined for a telegraph-transmission speed of 50 Bd, but can easily be adjusted to speeds up to 75 Bd. The transistorized analyzer circuitry comprises a Schmitt input circuit, a flip-flop control circuit, a crystal-controlled 100 kc

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Z/039/62/023/004/003/010  
D291/D303

Transistorized analyzer of ...

generator (a 150 kc generator is used for a transmission speed of 75 Bd), and a binary flip-flop which is the basic circuit of the frequency dividers, shift registers, and counters. The disadvantage of other multi-channel measuring instruments, i.e. measuring errors at values on boundaries between intervals or in close sequence, could be eliminated since (1) characteristic instants and registration pulses are mutually shifted by one half of the statistic interval, and (2) registration pulses within one teletype character are precisely timed at 20 msec. However, the application of the instrument has so far been restricted to research purposes only, since the analyzer comprises a vast amount of components (transistors) and malfunctions occur frequently. The complete assembly consists of three units mounted in superposed cabinets, i.e. the actual analyzer (bottom), a system of 26 counters with common indication (center), and another system of 26 counters with individual indication (top). The instrument was primarily used to verify the applicability of statistic measuring methods on telegraph systems in the CSSR, and to measure distortion characteristics of telegraph transmitters and distortion tolerances of novel telegraph receivers. It can also be used to measure the

Card 2/3

Transistorized analyzer of ...

Z/039/62/023/004/003/010  
D291/D303

quality of sound-telegraph systems and to study novel methods, such as integration and correlation telegraph-transmission systems. There are 7 figures and 7 Soviet-bloc references.

ASSOCIATION: Výzkumný ústav spojů, Praha (Communications Research Institute, Prague)

SUBMITTED: August 29, 1961

Card 3/3

ACCESSION NR: AP4029393

Z/0039/64/025/004/0207/0215

AUTHOR: Kubin, Boris (Engineer, Candidate of sciences); Chladkova, Drahomira (Khladkova, D.) (Graduate in mathematics)

TITLE: Automation of transmission-quality measurements in teletype trunk groups

SOURCE: Slaboproudny obzor, v. 25, no. 4, 1964, 207-215

TOPIC TAGS: teletype, teletype trunk group, trunk group, trunk line, distortion, distortion measurement, telegraph, teletype network, automation, statistical characteristic, traffic, system loading, programming

ABSTRACT: The article treats various ways of automating the measurements of telegraph distortion on the trunks of auto-switching teletype networks. The working regimes of the measuring automata are analyzed. The results of these analyses are statistical characteristics of the intervals between succeeding measurements on the respective trunk lines. These characteristics are a criterion of the proper functioning of the automatic measuring equipment during periods of busy traffic and influence the optimum choice of establishing measuring connections in the network. Orig. art. has: 2<sup>1</sup>/<sub>2</sub> formulas and 9 graphics.

Card 1/2



ACCESSION NR: AP4029393

ASSOCIATION: Vyzkumny ustav spoju, Praha ( Communications Scientific  
Institute)

SUBMITTED: 20Nov63

DATE ACQ: 01May64

ENCL: 00

SUB CODE: EC, IE

NO SOV REF: 002

OTHER: 012

Card 2/2

ZIMA, Vaslav[Zima Vaclav]; KUBIN, Boris; VASIN, V.I.[translator];  
DMITRIYEV, V.I., red.

[Electronic methods for measuring small time intervals.  
Translated from the Czech] Elektronnye metody izmereniia  
malykh intervalov vremeni. Moskva, Energiia, 1965. 245 p.  
(MIRA 18:10)

ACC NR:

AM0004545

Monograph

UR/

Zima, Vaclav; Kubin, Boris .

Electronic methods of measuring small intervals of time (Elektronnyye metody izmereniya malykh intervalov vremeni) Moscow, Izd-vo "Energiya", 65. 0245 p. illus., biblio.  
Translation of Elektronické měření krátkých časů [Prague] SNTL, 1962 5,690 copies printed

TOPIC TAGS: time measurement, measurement apparatus, mechanical measuring tool, electric measuring instrument, oscillograph, phase meter, pulse counter, frequency meter, time interval counter, flip-flop circuit, electronic circuit, coincidence circuit, nuclear physics apparatus

PURPOSE AND COVERAGE:

The book examines methods of measuring intervals of time. Particular attention is paid to measuring with electronic meters, although other methods are examined: the electromechanical, oscillographic, integral, method of coincidence. The accuracy of these methods of measuring small intervals of time is evaluated. The book is intended for engineering-technical workers in the field of weak-current electrical engineering and experimental physics.

Cerd 1/2

UDC:681.118.4

ACC NR.

AM5004545

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SUB CODE: 20,09/SUBM DATE: 10Aug65/ ORIG REF: 046/ OTH REF: 151/

Card 2/2

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medicina 6 no.11:825-836 N '61.

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Potentiometers and their problems.

P. 732. (SLABOPROUDY OBZOR) (Praha, Czechoslovakia) Vol. 18, no. 10, Oct. 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, no. 5, 1958

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(Chromatography) (Polarograph and polarography)  
(Inorganic compounds)

KUBIN, J.

"Investments in the Fish Industry and Trade." P. 10,  
(GOSPODARKA RYBNA, Vol. 5, No. 9, Sept. 1953. Warszawa,  
Poland.)

SO: Monthly List of East European Accessions, (EMAL),  
LC, Vol. 3, No. 12, Dec. 1954, Uncl.



KUBIN, Jaromir, MUDr, hlavní stomatolog

Experience with the system of district physicians. Prakt. sub.  
lek., Praha 2 no.9:194-195 1954.

(MEDICINE, SOCIALIZED

in Czech., system of district physicians with  
stomatologist)

(DENTISTRY

in Czech., system of district physicians)

PONCOVA, Vera, MUDr; KUBIN, Jaromir, MUDr; SVETJDA, Josef, doc. MUDr

Notes on excursion to Bulgaria. Prakt. sub. lek., Praha 2 no.9:  
195-204 1954.

(DENTISTRY  
in Bulgaria,)

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Feb 56.

1. Hlavní stomatolog ministerstva zdravotnictví.  
(DENTISTRY,  
in Czech., personnel problems (Cz))

JARONIR, Kubin, Jaromir

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1. Klinicka sakladna stomatologicke katedry UDL.  
(FOCAL INFECTION  
diag. & prev. (Cz))

MURIN, Jan  
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: Dr

Affiliation: Docent, 2000

Source: Prague, Prakticke Zubni Lekarstvi, Vol 9, No 7, Sept 1961; pp 215-221

Data: "Postgraduate Training in Stomatology"

GPO 981643

KUBIN, Jaromir

Use of high and ultrahigh rotation speeds in stomatology.  
Stomatologia 42 no.2:21-23 M=Ap '63 (MIRA 17:3)

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Geod kart obzor 2 no.3:55-56 Mr '56.

1. Okresni mericke stredisko, Strakonice.

KUBIN, Jerzy

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1. Presidential Office, Polish Academy of Sciences, Warsaw.

BERGER, Vladimir; KUDIN, Juraj

New types of fast hardening gluing glue. Brno 14 no. 8: 303-304.  
Ag 164

1. State Research Institute of Wood, Bratislava.

KUBIN, M.

"Transportation of a SJ 40-type building crane." p. 336

POZEMNI STAVBY. Praha, Czechoslovakia, Vol. 7, No. 6, March, 1959

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Unclass

CZECHOSLOVAKIA

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Institute of Macromolecular Chemistry of the Czechoslovak  
Academy of Sciences, Prague (for both)

Prague, Collection of Czechoslovak Chemical Communications,  
No 10, 1965, pp 3294-3301

"Structure and Properties of Hydrophilic Polymers and Their  
Gels. V. Diffusion in Gels."

KUBIN, M.

Z/002/61/000/001/002/003  
A205/A126

AUTHOR: None given

TITLE: Dissertation

PERIODICAL: Věstník Československé akademie věd, no. 1, 1961, 106

TEXT: The "Československá akademie věd, chemická sekce, Ústav organické chemie a biochemie" (Czechoslovak Academy of Science, Chemical Section, Institute for Organic and Biochemistry), granted the title of a Candidate of Science to Engineer Miroslav Kubin, on the grounds of a successful defense of his dissertation "Study of acetylene dimerisation".

J

Card 1/1

KUBIN, M.

Nontuberculous myobacterial infections in children and adolescents.  
Cesk. pediat. 20 no.9:817-822 S '65.

1. Mikrobiologicko-epidemiologicka skupina Vyzkumneho ustavu  
tuberkulozy v Praze (vedouci doc. dr. L. Sula).

CZECHOSLOVAKIA

KUBIN, M; ZIKMUND, L

Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, Prague - (for both)

Prague, Collection of Czechoslovak Chemical Communications, No 2, February 1967, pp 535-544

"On the kinetics of inhibited polymerization."



PLANDER, Emil; KUBIN, Mario; SMUTNY, R.

Use of radioisotopes for examination of the passage of material through a pressure reaction vessel. Chem prum 13 no.10:528-529 0 '63.

1. Ustav pro vyzkum, výrobu a vyuziti radioizotopu, Praha (for Plander and Kubin). 2. Spolek pro chemickou a hutni výrobu, n.p., Usti nad Labem.

KUBIN, P

The ignition spark and engine performance.

P. 342 (Automobil. Vol. 1, no. 10, Oct. 1957 Praha, Czechoslovakia)

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February 1958

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000827020006-6

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000827020006-6"

KUBIN, S.

Catalase activity in thermal blueOgreen algae in relation to temperature.  
In English. p. 3

BIOLOGIA PLANTARUM. (Ceskoslovenska akademie ved. Biologicky ustav)  
Praha, Czechoslovakia, Vol. 1, no. 1, 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 11, Nov. 1959  
Uncl.

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Ways to supersede the queens. p.562

SOTSIALISTLIK POLLUMAJANDUS. Tallinn, Estonia. Vol. 14, no. 12, June 1959

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Uncl.

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SUCHAN, Jaroslav; KUBIN, Zdenek

Injuries among agricultural workers. Acta univ. carol. [Med] Suppl.  
15:219-223 '61.

1: Ortopedická klinika lékařské fakulty University Karlovy se sídlem  
v Plzni, přednosta doc. dr. Dušan Polivka.  
(AGRICULTURE) (ACCIDENTS INDUSTRIAL)



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RUBIN, Z.; SUCMAN, J.

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cech. 31 no.5:431-434 0 '64.

1. Ortopedická klinika lékařské fakulty Karlovy University v Plzni  
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chir. orthop. traum. cech. 31 no.6:565 - 567 D' 64

1. Ortopedická klinika Lékařské fakulty Karlovy University v  
Plzni (prednosta doc. dr. D. Polivka).

STEEEL, F., inz.; KUBINA, R., inz.; CHVOJKA, Jan, inz.; KECLIK, V., inz.;  
ELEMARK, J., inz.; SORAL, J., inz.; MRAZ, V., inz.; VESELY, J.,  
inz.

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TECHNICKA PRACA. Czechoslovakia, Vol. 7, No. 7, July 1955

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Uncl.

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Cz 14 no. 3: Supplement: no. 3: 1-16 '64.

KUBINEK, M.

International conference of the International Organization for Standardization on surface roughness. p. 383. (Strojirenstvi, Vol. 7, No. 5, May 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

Z/032/60/010/012/006/009  
E073/E335

AUTHOR: Kubínek, M., Engineer

TITLE: Contribution to the Problem of Noise Generation  
in Antifriction Bearings

PERIODICAL: Strojirenství, 1960, Vol. 10, No. 12,  
pp. 927 - 932

TEXT: Of great importance in the field of noise generation in bearings is the work of Lohmann et al (Refs. 1, 2, 4). Work in this field is proceeding on the following three main problems : the nature and causes of the bearing noise; the influence of the supports of the bearings on noise, noise measurements. Of greatest importance is the first mentioned problem and the present state of knowledge in this field is analysed in the paper. Analysing the waviness of the races, it is assumed that the waviness has a regular sinusoidal shape, that the waviness exists only on the inner races and that the roller (balls) and the outer races have the ideal geometrical shape, the rollers (or balls) roll perfectly along the races; the operation of only a single  
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E073/E335

Contribution to the Problem of Noise Generation in Antifriction Bearings

roller-ball is considered; there are no elastic deformations at the contact points; the solutions are made to be valid in an orthogonal coordinate system. In Fig. 3, the dependence is graphed of the oscillation speed  $u_{\max}$  as a function of

the wavelength for a specific Czech-produced bearing at 1 500 r.p.m. for a wave amplitude of 0.0005 mm. It can be seen from this curve representing the theoretically derived relation that a sharp increase in the oscillation speed and thus in the noise will occur in the case of small wavelengths, i.e. in the case of a large number of waves along the circumference. This means that an effort must be made to reduce the number of waves at least into the range where their effect is insignificant. Although the curve, Fig. 3, was obtained on the basis of simplifying assumptions, an experimental curve, obtained with an uncalibrated measuring system, confirms the general trend. A film recording of the

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Z/032/60/010/012/006/009  
E073/E335

# Contribution to the Problem of Noise Generation in Antifriction Bearings

speed of oscillation of the outer races, reproduced in the article, indicates the great influence of the waviness on the oscillation intensity and thus on the noise. The waviness of the balls (and rollers) is the main factor in generating noise. The accuracy of sorting the rollers and balls is also an important factor; in Fig. 8 the influence of the waviness of the balls on the noise generation of the bearing is graphed (oscillation speed versus number of replaced balls; Curve 1 - degree of accuracy 5; Curve 2 - degree of accuracy 4; Curve 3 - degree of accuracy 3. Bottom straight line - basic noise of the bearing for balls of degree 1 accuracy). In Fig. 9, the influence of the accuracy in sorting on the noise is graphed (oscillation speed versus number of replaced balls; Curve 1 - 15  $\mu$ ; Curve 2 - 4  $\mu$ ; Curve 3 - 1  $\mu$ ). The influence of radial play is shown in Fig. 10 (oscillation speed versus radial play,  $\mu$ ). The influence of the surface roughness of the inner races is

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E073/E335

Contribution to the Problem of Noise Generation in Antifriction Bearings

shown in Fig. 11 (oscillation speed versus surface roughness,  $R_a$ ,  $\mu$ ). The influence of r.p.m. on the noise (oscillation speed) is expressed by a straight line and this is confirmed by experimental results. The influence of the viscosity of the lubricant on the noise (speed of oscillation versus viscosity,  $\eta$ ) is graphed in Fig. 13. The following conclusions are derived from the analysis. The waviness of the rollers (balls) and the races have the greatest influence and the wavelength also has a considerable influence. In determining its limit value, theoretical relations can be used which proved to be in good agreement with practical results. Within the limits of the valid specification tolerances, the accuracy of sorting of the balls and rollers and the surface roughness of the active surfaces do not affect the noise, improvement of the surface quality does not have any appreciable influence on the noise generation. The noise increases with the r.p.m.  
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E073/E335

Contribution to the Problem of Noise Generation in Antifriction Bearings

and therefore in high-speed bearings the geometrical shape of the functional surfaces and that of the balls (rollers) should be as accurate as possible. The noise generation of the rollers and balls can be reduced by using more massive-rigid gases or oils of higher viscosity; in the second case, it is necessary also to take into consideration other requirements to be met by the lubricant. There are 13 figures, 1 table and 11 references: 3 Czech and 8 non-Czech.

ASSOCIATION: VUVL, Brno

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Z/032/60/010/012/006/009  
E073/E335

# Contribution to the Problem of Noise Generation in Antifriction Bearings

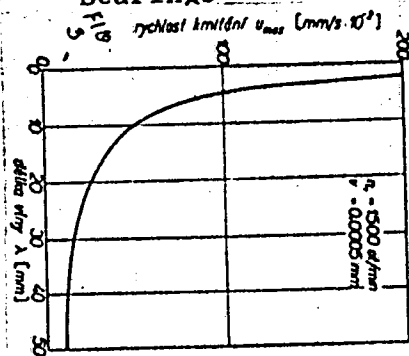
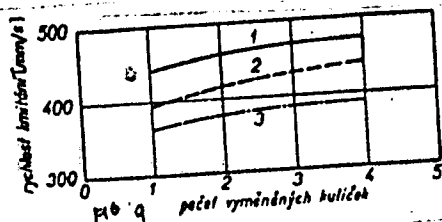
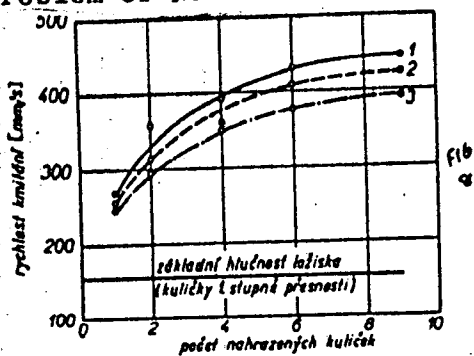


Fig. 9:

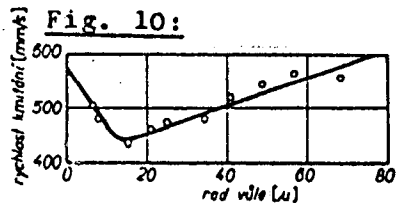
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Z/032/60/010/012/006/009  
E073/E335

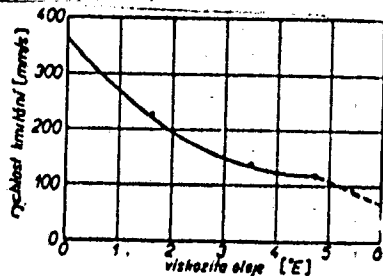
# Contribution to the Problem of Noise Generation in Antifriction Bearings

Fig. 10:

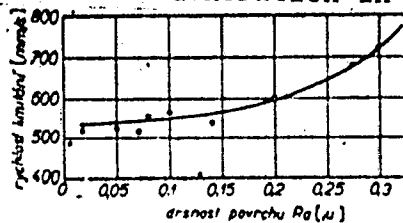


Obr. 10. Vliv radiální vůle na hlučnost ložiska

Fig. 13:



Obr. 13. Vliv maziva na hlučnost valivého ložiska



Obr. 11. Vliv drsnosti povrchu oběžné dráhy vnitřního kroužku ložiska 6308 na hlučnost

Card 7/7

KUBINEK, M., inz.

"Durability and safety of antifriction bearings" by B. Elmut.  
Reviewed by M. Kubinek. Strcjirenstvi 13 no.10:797 O '63.

L 23928-66 T/ETC(m)-6 WW/DJ

ACC NR: AP6013007

SOURCE CODE: HU/0011/66/000/004/0147/0152

AUTHOR: Kubinek, Milan (Engineer)

ORG: Czechoslovak Research Institute for Bearings (Csehszlovak  
Csapagykutató Intézet)

TITLE: Increasing the carrying ability of antifriction bearings

SOURCE: Gep, no. 4, 1966, 147-152

TOPIC TAGS: roller bearing, antifriction bearing, mechanical stress,  
stress distribution, material deformation, durability

ABSTRACT: The uneven distribution of stress on the contact surface of cylindrical roller bearings has been studied. It was theoretically shown that stress is greatest on the edges of the contact surface. A formula was found for the shape of the roller which would secure optimal carrying ability. A roller profile was designed in theory and tested in practice by the photoelasticity method and the deformation and durability tests. As a result, a new, precalculated roller shape makes it possible to install smaller bearings with high carrying ability and great durability, whereas formerly only large roller bearings could be used. This means lower weight and a reduction in cost and size.

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